

Reply  
U.S.S.N. 10/650,163  
Page 3 / 7

In the Claims:

Please amend claims 38, 39, and 42-50 to read as follows:

1-37 canceled

38. (currently amended) A method for controlling the rate of delivery of a biologically active material, comprising

mixing the active material with a solution or suspension of a gel-forming macromer and covalently crosslinking the macromer to form a gel,

wherein the macromer comprises at least four covalently linked polymeric blocks, at least one thermally sensitive region, and at least one covalently crosslinkable group, and wherein at least two of the blocks are hydrophobic, and at least two of the blocks are hydrophilic, and wherein the gel has a temperature dependent volume.

39. (currently amended) The method of claim 38 wherein the volume of the crosslinked gel changes in permeability in response to an effect selected from the group consisting of decreases upon an echange elevation in temperature, a change in ionic concentration, and a change in pH.

40. (original) The method of claim 38 wherein at least one hydrophobic block aggregates in aqueous solution to form a hydrophobic domain.

41. (previously presented) The method of claim 40 wherein the hydrophobicity of the domain is controlled by selecting the hydrophobicity of the block.

42. (currently amended) The method of claim 40 38 wherein the hydrophobicity of the domain is controlled by adding hydrophobic materials to the gel-forming macromer is provided in an aqueous solution or suspension.

43. (currently amended) The method of claim 38 wherein the biologically active material is in the form of a microparticles.

44. (currently amended) The method of claim 38 wherein the gel is formed of a microparticles after crosslinking.

45. (currently amended) The macromer method of claim 1-38 further comprising at least two hydrophilic blocks wherein the biologically active material is a synthetic inorganic compound, an organic compound, a protein, a peptide, a polysaccharide, a lipid, a ganglioside, or

Reply  
U.S.S.N. 10/650,163  
Page 4 / 7

a nucleic acid.

46. (currently amended) The ~~macromer method~~ of claim ~~138~~ wherein the macromer further comprises biodegradable blocks provided in a pharmaceutically acceptable carrier.

47. (currently amended) The ~~macromer method~~ of claim 46 wherein the ~~macromer gel~~ is provided in a carrier suitable for parenteral administration.

48. (currently amended) The method of claim ~~32-38~~ wherein the macromer ~~further comprises at least two hydrophilic blocks~~ is crosslinked by photopolymerization.

49. (currently amended) The method of claim ~~32-38~~ wherein the macromer is applied to tissue in a pharmaceutically acceptable carrier prior to crosslinking.

50. (currently amended) The method of claim ~~49-38~~ wherein the macromer ~~or gel~~ is provided in a pharmaceutically acceptable carrier for parenteral administration.